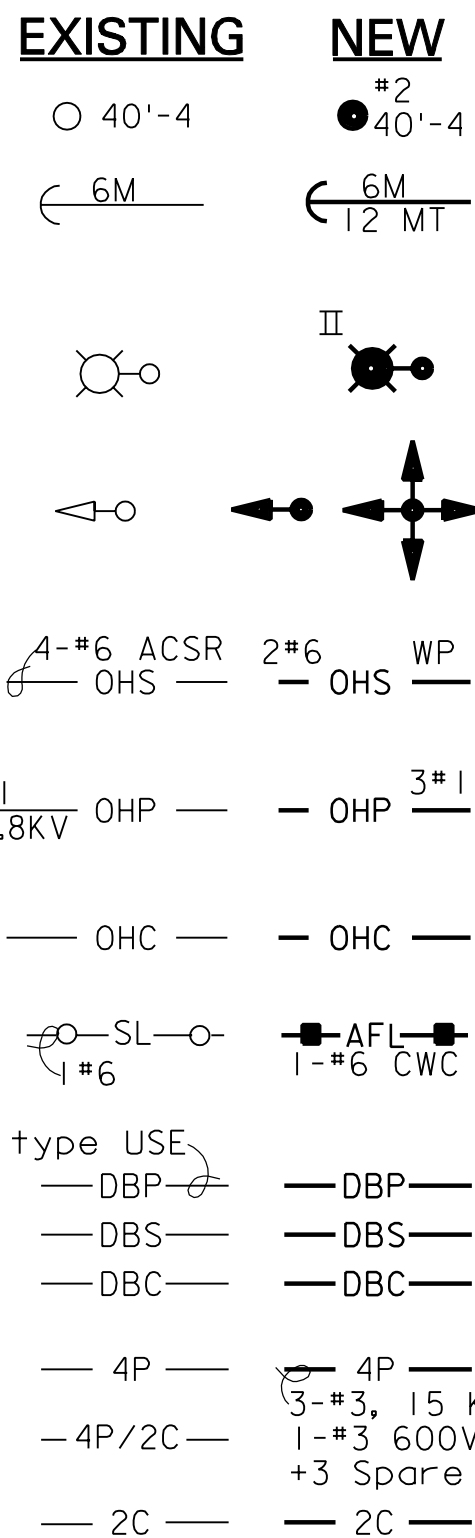
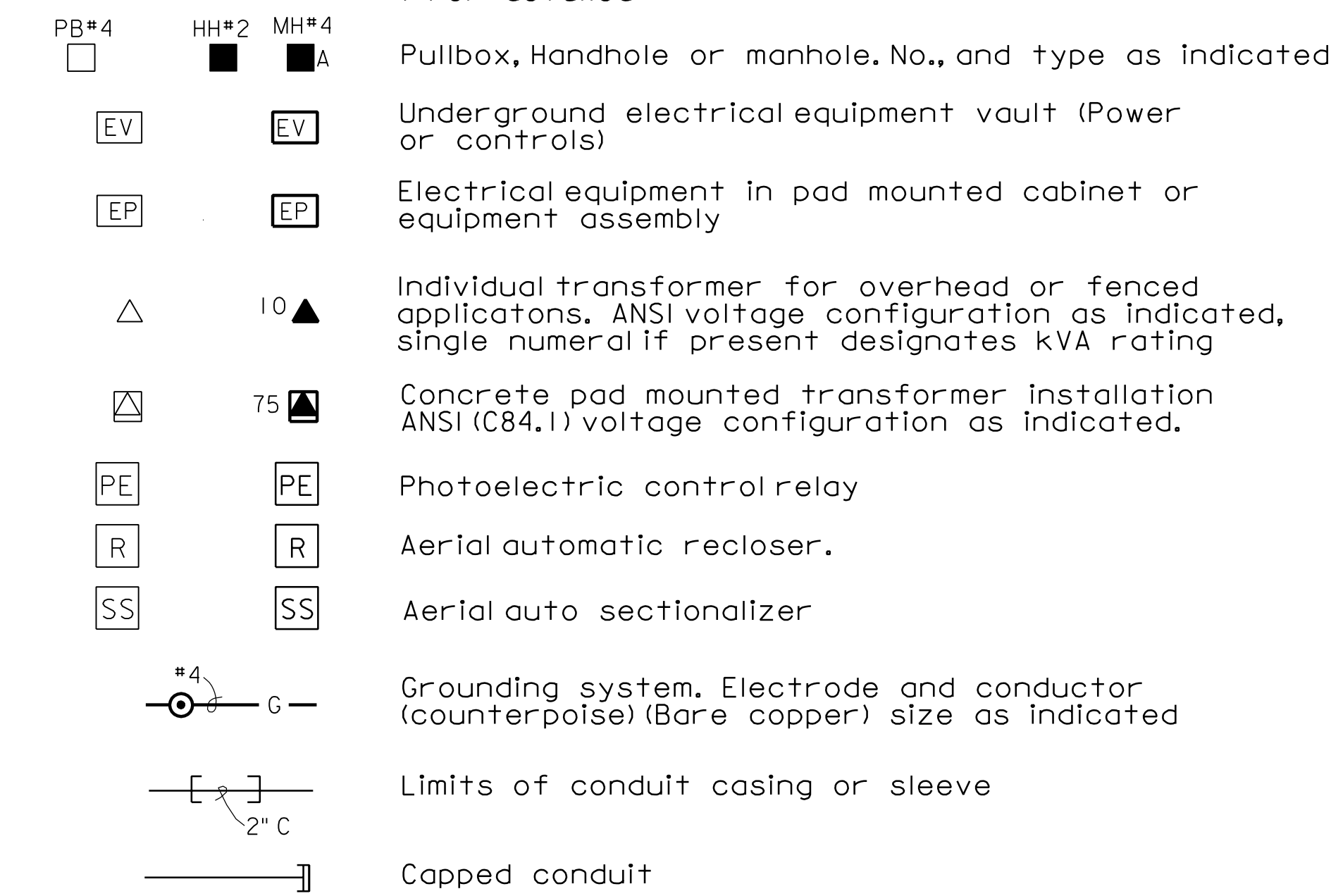


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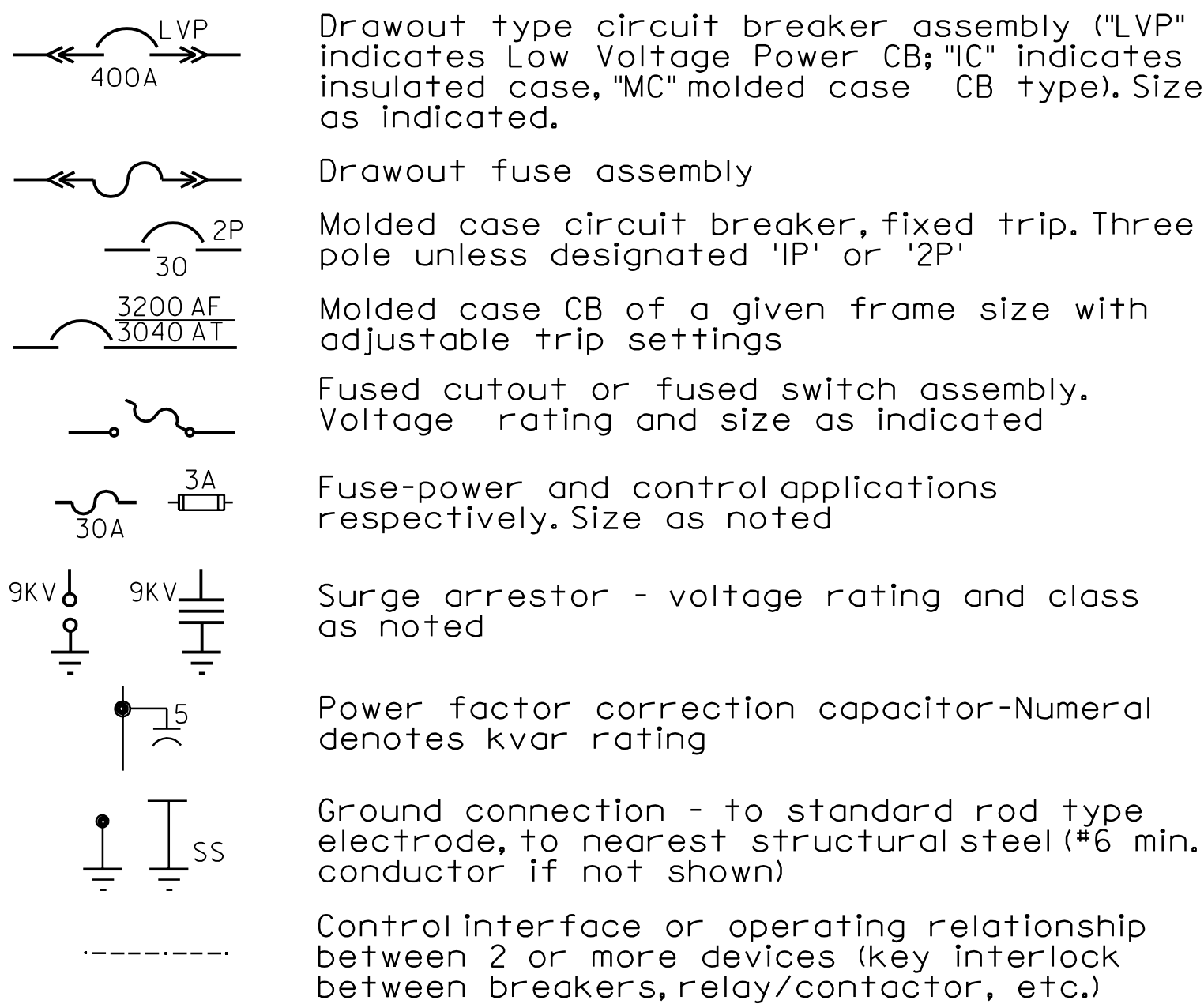


C



B

ELECTRICAL POWER DIAGRAM LEGEND



A

EXTERIOR ELECTRICAL LEGEND

Pole, No., Length, and Class as indicated

Down guy and anchor. Strength in lbs. Indicated (Anchor strength is based on holding power in Class 7 soil) "MT" indicates twin eye anchor rod

Pole mounted roadway or area lighting installation, watts as indicated, Roman Numeral indicates IES type distribution

Pole mounted floodlighting installation. Arrows indicate no. of luminaires and approx. horiz. aiming

Overhead powerline-secondary or service drop No., size and type of conductor and line voltage as indicated.

Overhead powerline-primary distribution. No., size, and type of conductors and line voltage as indicated

Overhead communications line

Series street light and airfield lighting circuit respectively. No., size and type of wire as indicated.

Direct buried line. The letter "P" designates primary power (#8 min. if single-conductor cables are used), "S" secondary power (low voltage), "C" a communications type line. Number, size, and type of cable as indicated

Underground duct line, concrete encased (See specs). Numeral indicates quantity of ducts (4" min. if not identified). Letter "P" indicates electrical power line, "C" a communications type line. No., size and voltage of cable as indicated or per cross section detail

Underground distribution-misc. configurations. No. and size of conductors and raceway as described (*) or detailed

Pullbox, Handhole or manhole. No., and type as indicated

Underground electrical equipment vault (Power or controls)

Electrical equipment in pad mounted cabinet or equipment assembly

Individual transformer for overhead or fenced applications. ANSI voltage configuration as indicated, single numeral if present designates kVA rating

Concrete pad mounted transformer installation ANSI (CB4, I) voltage configuration as indicated.

Photoelectric control relay

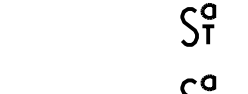
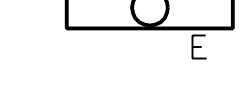
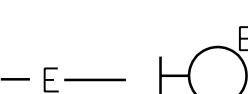
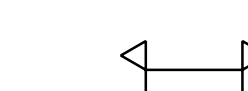
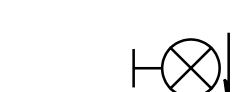
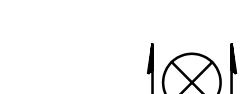
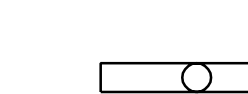
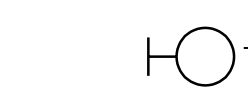
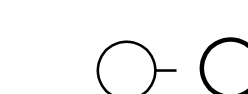
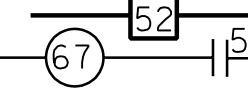
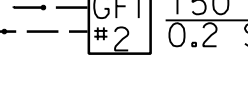
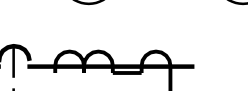
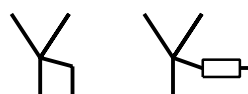
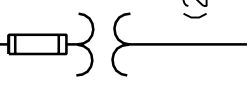
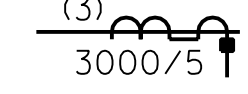
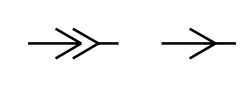
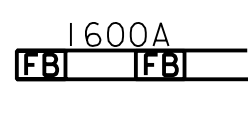
Aerial automatic recloser.

Aerial auto sectionalizer

Grounding system. Electrode and conductor (counterpoise) (Bare copper) size as indicated

Limits of conduit casing or sleeve

Capped conduit



Feeder type bus duct (FB) or metal-enclosed bus assemblies (High or medium voltage). (Cu bus if not identified). Ampacity as indicated

Separable connector in primary distribution line (Elbow terminator and bushing combination)- loadbreak and non-loadbreak styles respectively

KiloWatt-hour meter (WH is watt-hour meter)

Current transformer (CT). Second numeral of transformation ratio identifies nominal current of metering/accessory circuit. Numeral in parenthesis indicates quantity of CT's

Voltage (Potential) transformer (VT/PT), drawout and non-drawout. Quantity and voltage rating as indicated

Transformer delta connection designation when used by a transformer symbol.

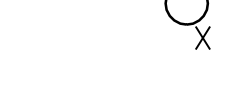
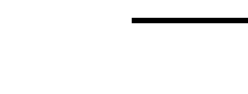
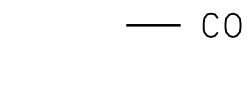
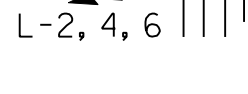
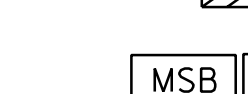
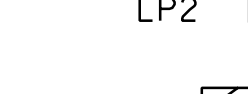
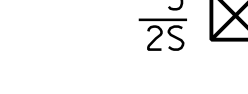
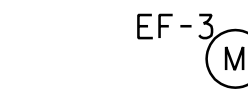
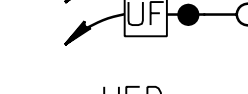
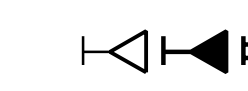
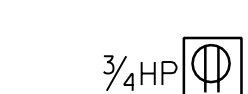
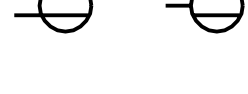
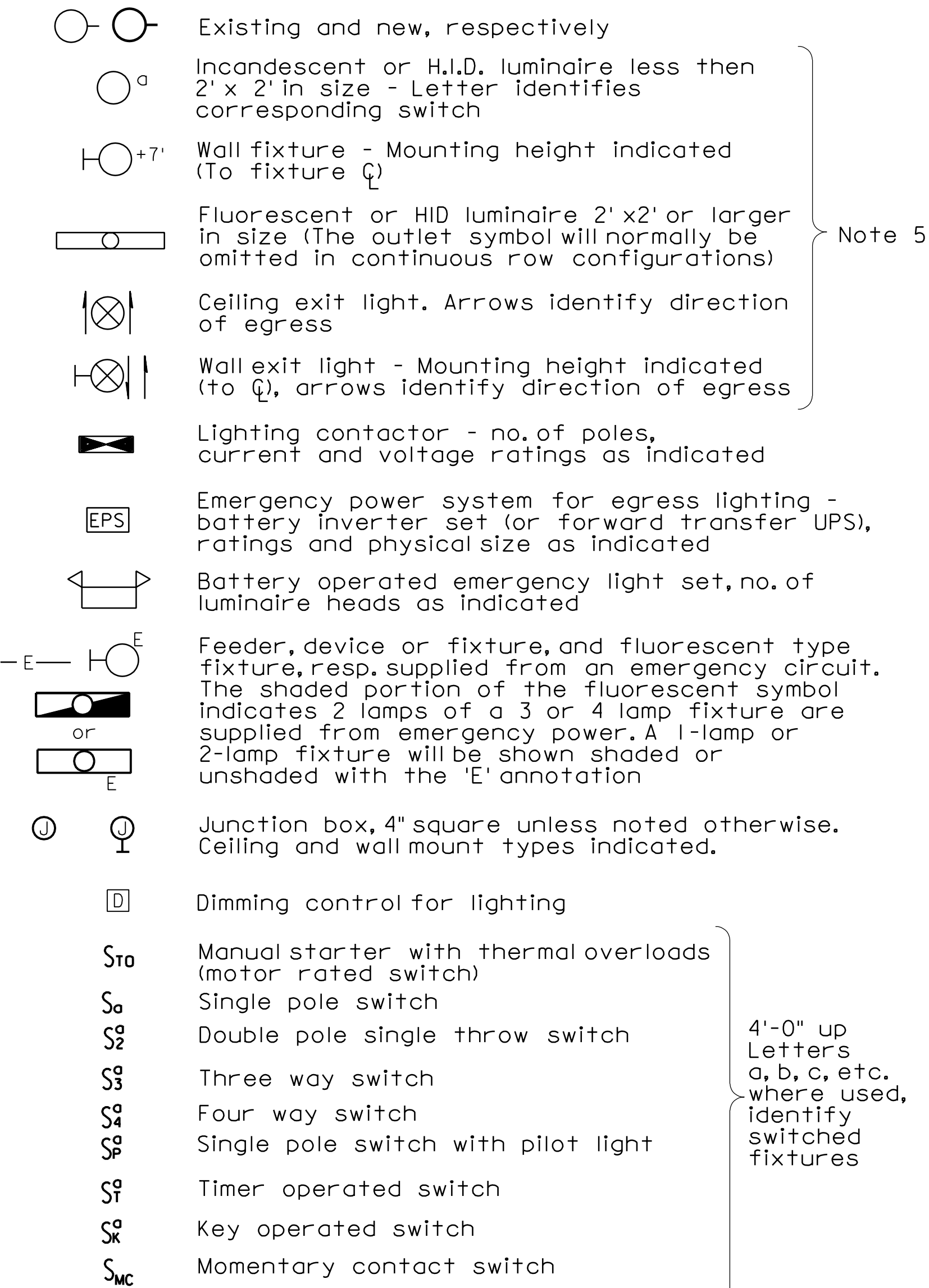
Transformer grounded-wye connection designation when used by a transformer symbol, direct grounded and resistor grounded respectively. If the ground symbol is missing, then it is an ungrounded or floating wye connection.

Ammeter and voltmeter with phase selector switch

Ground fault interrupting equipment (See specs) with trip setting at designated time delay interlocking controls as indicated

Sensor, device or apparatus (Electrical or electromechanical); Numeral identifies type or function per ANSI/IEEE C37.2

INTERIOR ELECTRICAL LEGEND



Electric water cooler (Drinking Water Dispenser) Size as noted

Individual floor outlet assembly. 'SM' denotes surface mounted type (above floor service fitting), 'R' denotes recessed (Flush mounted) type, see specs

Relocatable service post assembly - length as required to extend above suspended ceiling. See note 8.

Telephone outlet, single and duplex jack configurations (8 pin jacks). See specs. Symbol without leg(s) requires duplex, jacks. A square around the device indicate it is floor mounted. HL-hotline telephone, P= Public telephone, see note 8.

Cable tray for communications and data processing, dimensions as indicated (W x D)

Telephone terminal board (Plywood backboard); telephone terminal cabinet, size as indicated

Multioilet configuration in underfloor duct system (See specs.). Open circle denotes blank insert location, solid denotes a device installation; 'P' indicates a power duct with duplex receptacles (NEMA 5-15), 'C' denotes communications duct w/bushed fitting; figures identify nominal width; UFD identifies a section of feeder duct (No inserts).

Motor - use and size as indicated

Motor controller - magnetic or as indicated, upper numeral designates NEMA size; lower letter, if used, indicates: 'R' - reversing type, '2S' - two speed type, 'FV' - Full Voltage type (default if not indicated), 'RV' - Reduced Voltage type, 'AT' - Auto Transformer type, 'PW' - Part Winding type.

Combination starter w/externally operated disconnect

Disconnect switch, size and type as indicated (or 3P, 240V, 30A min)

Pushbutton control station - 1, 2, or 3 buttons "EPO" = emergency power off.

Selector switch (Separate from starter)- 2 position or 3 position as indicated. If not specified elsewhere, legend plate designations will be 'ON-OFF' and 'MAN-OFF-AUTO' (or 'H.O.A.')

Thermostat - see Mech. specs, 5'-0" up

Motor control center, free standing w/no. of 20" wide (min) vertical sections indicated. See diagram and/or schedule for sizes, ratings, and loads

Lighting and appliance type panelboard - flush mounted and surface mounted types, see corresponding panel schedule. Open symbol indicates existing

Distribution type panel

Main Switch Board or Main Switch Gear (abbreviated or spelled out), see Floor Plans and diagrams for dimensions, clearances, and electrical ratings

Bus duct assembly with plug-in power box capability at 2' intervals, current rating as indicated. Open circle represents a position with blank cover only, solid circle a plug in box with breaker or switch (see specs), recept. symbol identifies a box with receptacle attached (figures indicate rating of recept and overcurrent device.

Branch circuit and feeder wiring. Long, short, single dot and double dot hash marks represent phase conductor, neutral, equipment ground, and isolated equipment ground respectively (as applicable). Arrows and letter/numerals identify home-run circuits. If hash marks are omitted between home-runs, transition segments, and end-of-line devices, required quantity is understood to apply to all unmarked intervening segments. A circuit without any designation indicates the circuit is two-wire (min #12 in 1/2" C).

Conduit only - no conductors, pull wire if over 50'

Comm or power feeder installed under floor slab in coated R.S. conduit unless indicated otherwise

Light line - existing, or by other trades

Heavy line - new electrical work

Future work or electrical item repeated for clarity (to lighting sheet from power or comm dwg., across match lines, etc.)

Existing equipment; existing equipment as relocated (new location)

Generator or generator connection.

FCP FCP Fire alarm control panel, (See specs)

FAA FAA Fire alarm annunciation provisions, w/or w/o graphic representation, see specs

FST FST Fire alarm signal transmitting (with antenna for FM radio type), see specs

F F Manual fire alarm station - 4'-0" A.F.F.

F F Abort station. "F"= fire; "H"=halon; "CO"=carbon dioxide

F F Fire alarm warning device - bell, chime, horn and minihorn, 7'-6" A.F.F.

F F Fire alarm warning device, visible only - flashing light, ceiling mounted and wall mounted (7'-6" A.F.F.) respectively

F F F.A. warning device, combined audible and visible - flashing light with a minihorn, horn, bell, or chime - 7'-6" A.F.F.

Heat detector - undifferentiated symbol indicates fixed temperature or combination F,T. and rate of rise type, see specs; 'CR' indicates compensated rate ("rate anticipation") type with tubular sensing element required

Smoke detector. The letter 'I' or 'P', if present, stipulates ionization or photoelectric type. 'D' stipulates a duct type smoke detector. Where duct detectors are shown in pairs, locations are in supply and return ducts, a single detector would be installed in the supply duct if the location is not otherwise indicated.

Fire alarm contacts at solenoid (OSY) valve, tamper switch, alarm check valves, water flow indicator and flow switch, see Mech. specs

24-inch lightning air terminal.

60-inch lightning air terminal.

Lightning protection main conductor

NOTES:

- Where more than one symbol format is shown, the preferred form is shown first.
- Supplemental electrical legends may appear in this set of drawings to establish symbols for items not covered by this sheet or to indicate specific conditions in lieu of symbols shown on this sheet.
- For electrical device mounting heights in masonry construction, see Standard Drawing No. 40-15-01, sheet 2.
- Existing items are designated by a thin line or an open symbol; new items with a thick line or closed (filled-in) symbol.
 - [203] indicates fixture type, per fixture schedule, for entire room or area when adjacent to the room name or number designation or for single fixture when adjacent to the fixture symbol.
 - Ⓢ capital letter or fixture designation inside or adjacent to symbol indicates fixture type for each fixture per fixture schedule.
- Sizes of wire and cable are based on copper conductors unless indicated otherwise.
- Letters such as "WP", "EP" adjacent to any symbol indicate special construction is required. See Abbreviations sheet for definitions.
- All receptacle and communication outlets shall be mounted 15 - inches A.F.F. as measured to the bottom of the outlet box, unless indicated otherwise.

\$\$\$ - THINK VALUE ENGINEERING - \$\$\$

Revisions			
Symbol	Descriptions	Date	Approved
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
Designed by:	OMAHA NEBRASKA		
Drawn by:	OMAHA DISTRICT DESIGN GUIDE		
Checked by:	ELECTRICAL LEGEND SYMBOLS		
Reviewed by:	Plot Scale Ratio: 1 : 1	Date: X	Sheet reference number:
Submitted by:	Design File: elecleg1.dgn	Drawing Code: X	3
Chief: ELEC. FAC. Section	Spec. No.: DACA 45	Contract No.: DACA 45	

EXAMPLE 3

D

C

B

A